Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



CATALOG OF SEED AND VEGETATION CTAINING OF SEED THE SOUTH CTAINING OF SEED THE SOUTH CTAINING OF A THE

Reserve

Okra

Science and Education Administration U.S. Department of Agriculture 1978

Catalog of Seed and Vegetative Stock Available From the Southern Regional Plant Introduction Station

24510 OKRA

(Abelmoschus esculentus) 4/4

♦ Compiled by

REGIONAL PROJECT S-9 of the Agricultural Experiment Stations of

Alabama, Arkansas, Florida, Georgia, Hawaii, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, and Virginia

and the

Science and Education Administration

and

Soil Conservation Service

of the

U.S. Department of Agriculture

This catalog, which supersedes the edition of February 1975, is available from the Southern Regional Plant Introduction Station, Science and Education Administration, U.S. Department of Agriculture, Experiment, Ga. 30212. Other catalogs in this series:

Vine Crops. June 1978.

Sesamum Species. August 1978.

Castors. September 1978.

Guar. September 1978.

Pearlmillet. November 1978.

Table Legumes. December 1978.

Summer Legumes. December 1978.

Catalog of Seed and Vegetative Stock Available From the Southern Regional Plant Introduction Station. Okra. December 1978.

Published by Agricultural Research (Southern Region), Science and Education Administration, U.S. Department of Agriculture, P.O. Box 53326, New Orleans, La. 70153.

Foreword

Seeds of the plant introductions listed herein are available in small quantities to research workers on request to the Southern Regional Plant Introduction Station, Experiment, Ga. 30212. This inventory is cumulative for plant materials grown at the regional station or by cooperating State experiment stations since 1949, when the S-9 "New Plants" project was initiated. During the year of seed multiplication, plants were observed, when possible, for agronomic and horticultural characteristics, disease and nematode resistance, and other desirable genetic characters. These data are summarized for the use of plant scientists who wish to select plant materials for research.

Many plant species that are not in this seed list are available at the Northeastern Regional Plant Introduction Station, Geneva, N.Y. 14456; North Central Regional Plant Introduction Station, Ames, Iowa 50010; and the Western Regional Plant Introduction Station, Pullman, Wash. 99163. The Plant Germplasm Technical Committee member in each State can provide a list of plant materials available at each station. In the Southern States, Hawaii, and Puerto Rico the members are:

- Alabama: C. S. Hoveland, Department of Agronomy, Agricultural Experiment Station, Auburn, Ala. 36830.
- Arkansas: John L. Bowers, Department of Horticulture and Forestry, Agricultural Experiment Station, Fayetteville, Ark. 72701.
- Florida: Gordon M. Prine, Department of Agronomy, Agricultural Experiment Station, Gainesville, Fla. 32611
- Georgia: W. R. Langford, Regional Plant Introduction Station, Experiment Ga. 30212.
- Hawaii: R. A. Hamilton, Department of Horticulture, College of Tropical Agriculture, University of Hawaii, Honolulu, Hawaii 96822.
- Kentucky: R. E. Sigafus, Department of Agronomy, Agricultural Experiment Station, Lexington, Ky. 40506.
- Louisiana: R. J. Stadtherr, Department of Horticulture, Agricultural Experiment Station, Baton Rouge, La. 70803
- Mississippi: C. E. Watson, Department of Agronomy, Agricultural Experiment Station, Mississippi State, Miss. 39762.
- North Carolina: W. T. Fike, Department of Crop Science, North Carolina State University, Raleigh, N.C. 27607.
- Oklahoma: James S. Kirby, Department of Agronomy, Agricultural Experiment Station, Stillwater, Okla. 74074

- Puerto Rico: Oscar D. Ramirez, Department of Plant Breeding, Agricultural Experiment Station, Rio Piedras, P.R. 00928.
- South Carolina: D. W. Bradshaw, Department of Horticulture, Agricultural Experiment Station, Clemson, S.C. 29631.
- Tennessee: L. N. Skold, Department of Plant and Soil Sciences, University of Tennessee, Knoxville, Tenn. 37901.
- Texas: E. L. Whiteley, Department of Agronomy, Agricultural Experiment Station, College Station, Tex. 77843.
- Virginia: A. J. Lewis III, Department of Horticulture, Agricultural Experiment Station, V.P.I. & S.U., Blacksburg, Va. 24061.

Plant scientists in the Southern Region having a need for plant germplasm not available at any of the regional stations or other units of the National Plant Germplasm System should direct their requests to the Coordinator, Regional Project S-9, Southern Regional Plant Introduction Station, Experiment, Ga. 30212. Scientists in the North Central, Northeastern, or Western Regions should direct similar requests to the Coordinator, Regional Project NC-7, NE-9, or W-6, at the appropriate Regional Plant Introduction Station.

W. R. Langford Coordinator, Regional Project S-9 Science and Education Administration

Abelmoschus esculentus Introductions

The following symbols and abbreviations are used in the table of Abelmoschus esculentus introductions:

Column	Interpretation
Source	AFGH, Afghanistan. GUAT, Guatemala. MEX, Mexico. NIGIA, Nigeria. PAK, Pakistan. PHIL, Philippines. PU RI, Puerto Rico. SAUDI, Saudi Arabia. TAIWN, Taiwan. TURKY, Turkey. UAR, United Arab Republic.
Stem type	1, branched. 5, not branched. 9, mixture of branched and unbranched plants.
Pod type	1, angular. 9, round.
Pod axis	1, curved. 3, straight. 5, stocky. 9, mixture of pods with curved axes and pods with straight axes.
Root knot	Caused by a reaction to unspecified nematodes of the root knot group (<i>Meloidogyne</i> spp.).1 or 2, minor gall formation. 3 or 4, moderate gall formation. 5 or 6, severe gall formation.
Fusarium wilt	Caused by Fusarium vasinfectum (Atk.) Snyd. and Hans. 2, highly resistant.

ROOT FUSAR-TY KNOT IUM	7E 2	ш	α		α		*		iii N∢w m	8
SPINE	HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY MODERAT	HEAVY HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY	HEAVY MODERAT HEAVY LIGHT	HEAVY
POD	SHORT LONG	LONG SHORT LONG VERY LONG	SHORT SHORT LONG SHORT SHORT	SHORT LONG LONG LONG VARIABLE	SHORT SHORT SHORT	SHORT LONG SHORT SHORT SHORT	SHORT LONG SHORT LONG SHORT	SHORT VARIABLE LONG SHORT	VERY LONG LONG LONG LONG	LONG
POD	 υ	6	0	0-					нноню	6 -
TYPE	0									
PLANT		2 Z Z Z ШШШШ ШШШШ « « « « « « « » « »	C C C C C C C C C C C C C C C C C C C	VARIABLE GREEN GREEN	Z Z Z ШШШ ШШШ 22 22 22 13 13 13	SAREEN VARIEN VARIABLE VARIABLE		VARIABLE SREEN VARIABLE GREEN	VARIABLE CAREEN STREEN	VARIABLE VARIABLE
STEM	0-00-	v o			0 = 0				w w w	v -
STRENGTH	STRONG STRONG STRONG STRONG STRONG	STRONG STRONG WEAK STRONG	V V V V V V V V V V V V V V V V V V V	WEAK WEAK WEAK STRONG	STRONG STRONG STRONG	STRONG WEAK STRONG WEAR STRONG	STRONG STRONG STRONG STRONG	STRONG STRONG STRONG	STRONG STRONG STRONG	STRONG
DLANT HEIGHT	000000	0000 0000 0000 0000	090 120 055 070	065 080 075	0000	050 050 050	075 150 060 090 075	080 090 185 070	125 090 110 075	100
MATURITY	MIOSEASON VERY LATE LATE VERY LATE	LATE VERY LATE LATE MIDSEASON	VERY LATE VERY LATE VERY LATE VERY LATE	LATE EARLY LATE EARLY	LATE MIDSEASON EARLY	EARLY LATE MIDSEASON MIDSEASON LATE	VERY LATE LATE LATE VERY LATE VERY LATE	VERY LATE VERY LATE LATE EARLY	LATE EARLY EARLY VERY LATE EARLY	EARLY MIOSEASON
SOURCE	TICKE NOOK NOOK NOOK NOOK NOOK NOOK NOOK NO	TUCRET TUCRET TUCRET TUCRET TUCRET TUCRET	11 11 11 11 11 11 11 11 11 11 11 11 11	TUCKKK TUCKKK TUCKKK TUCKKK TUCKKK	M A A A A A A A A A A A A A A A A A A A	HILL RRANC ANNA NNNN	NANAN ARARA	I RAAN I RAAN I SAUDI I AUDI	A P P P P P P P P P P P P P P P P P P P	TURKY
P. I. NUMBER	105442 109215 116453 116454 116802	116803 117095 120660 120661 120826	120827 120828 120832 120833	120835 120836 120839 120841 123451	123452 124179 124398 124399 124399	127417 138507 138508 140316 140317	140318 142780 142781 142782 142782	142785 142786 142787 155295 164169	164273 164652 164694 164714 164800	164925

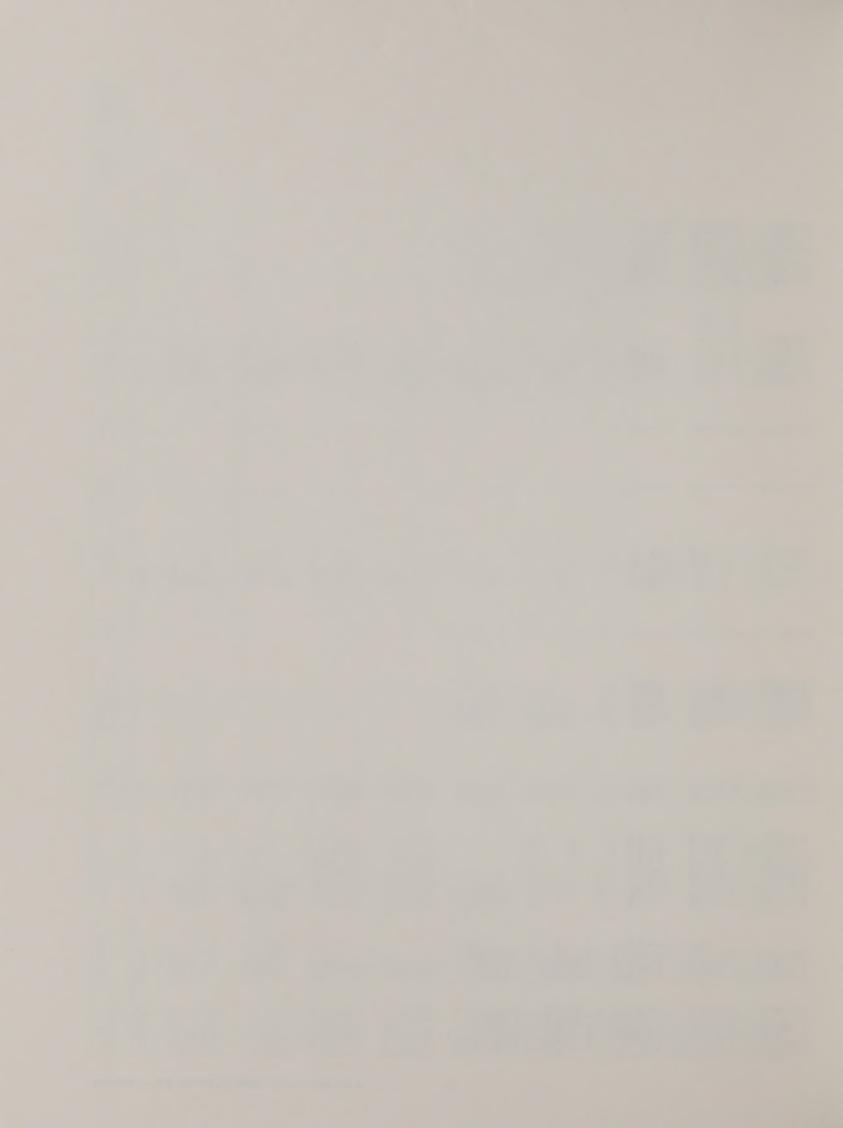
N 4		₩₩₩₩	m d m m	₩ ø 4	ሥ ሰ ፋፋ心	๓ ๓๓๗	กของเก	សហសហ 4	4 N4	ю
нЕАVY	HEAVY HEAVY	MODERATE HEAVY HEAVY	H H H H H H H H H H H H H H H H H H H	H H H H H H H H H H H H H H H H H H H	HEAVY HEAVY HEAVY	VERY HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY VERY HEAVY	VERY HEAVY HEAVY HEAVY HEAVY HEAVY	HEAVY
SHORT LONG LONG	SHORT VARIABLE SHORT LONG LONG	L ONG L ONG S HORT L ONG	L DNG SHORT L DNG SHORT L DNG	SHORT LONG LONG LONG SHORT	L DNG SHORT SHORT L DNG	SHORT SHORT SHORT SHORT LONG	LONG SHORT SHORT SHORT MEDIJM	LONG VARIABLE SHORT LONG LONG	VARIABLE SHORT LONG SHORT SHORT	SHORT
-00	o o n − o	eeee ប		0 m		M = M M =	M) and and and	(f) (f)	-0mm-	m
, per peri	and and and and and	grad grad grad grad grad		وسو وسو وسو وسو	pri pri pri pri			ज ल ल ल ल		
Z Z யய யய ය ය い い	GREEN GREEN VARIEN GREEN	VAR IABLE VAR IABLE GREEN GREEN	GREEN GREEN GREEN GREEN VARIABLE	Z Z Z Z Z			A CARRED RE CONTROL OF THE CONTROL O			S E E N
5	onu	೧⊸೧೯೮	0-22	ww-∞-	ณ∸งหพ	o - v v - o	- 2222	വവവരര	00	ហ
STRONG	## ## ## ##	STRONG STRONG STRONG	STRONG WEAK WEAK STRONG STRONG	STRONG STRONG STRONG STRONG STRONG	WEAK STRONG WEAK STRONG	STRONG STRONG WEAK	WEAK STRONG STRONG STRONG STRONG	STRONG STRONG STRONG STRONG	WEAK STRONG WEAK WEAK STRONG	STRONG
060	075 100 075 120	090	13 00 00 00 00 00 00 00 00 00 00 00 00 00	0000 0000 0000 0000	000000000000000000000000000000000000000	00 20 0 40 0 40 0 40 0 40	0000 0000 0000 1100	00111 0080 038	000 000 000 000 000 000	360
MIDSEASON EARLY EARLY	LATE LATE MIDSEASON EARLY EARLY	EARLY MIDSEASON EARLY LATE EARLY	MIDSEASON EARLY EARLY EARLY EARLY	MIDSEASON LATE MIDSEASON MIDSEASON	EARLY MIDSEASON EARLY MIDSEASON MIDSEASON	MIDSEASON MIDSEASON EARLY EARLY LATE	MIDSEASON EARLY EARLY MIDSEASON EARLY	LATE MIDSEASON MIDSEASON LATE EARLY	LATE VERY LATE LATE MIDSEASON MIDSEASON	MIDSEASON
INDIA	11 22 23 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	TURKKY YYXXX	1102 1102 1102 102 102 103 103 103 103 103 103 103 103 103 103	11102 11022 11022 1022 1022 1022 1022 1	TURKY TURKY TURKY	1111 1100 1100 1100 1100 1100 1100 110	1111 1100 1100 1100 1100 1100 1100 110	1111 1100 1100 1100 1100 1100 1100 110	TTUND TTUND TUND TUND TUND TUND TUND TUN	TURKY
165468 165496 165501	167027 167096 167108 167207	167376 169693 169694 169695 169695	169697 169698 169699 169700	169702 169703 169704 169705	169707 169708 169709 169710 169711	169712 171658 171659 171660 171661	171662 172672 172673 172674 172674	172676 172677 172678 172679 172680	173832 174000 174001 174002 174003	174004

FUSAR	 				N NN	000	Ν			
ROOT	! ! ! ! ! !	444NN	ผฅฅ๗ฅ	ი	Ს ♦ ᲡᲡᲠ	ណិណល	νν	N N N	m	
SPINE	HEAVY VERY HEAVY HEAVY	HE AVY HE AVY HE AVY HE AVY	HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY	HEAVY VERY HEAVY VERY HEAVY	VERY HEAVY HEAVY	HEAVY HEAVY HEAVY VERY HEAVY	HEAVY HEAVY HEAVY	HEAVY VERY HEAVY
POD	SHORT LONG	LONG SHORT SHORT VARIABLE SHORT	SHOR LONG LONG CONG O	LONG LONG LONG LONG	L DONG L DONG L DONG L DONG V AR I A B L E	L DNG L DNG S HORT L DNG S HORT	SHORT CONG CONG	L DNG SHORT SHORT SHORT L DNG	L DNG VARIABLE L DNG MEDIJM SHORT	LONG SHORT LONG VARIABLE
POD AX 1S	 no	M =	Medel		- O O	pa pri pri pa pri	6 444	901 ped [1] [1] ped		m m
POD	 	pq pr pr pr pr	peri peri peri peri	, , , , , , , , , , , , , , , , , , ,			-	m = m = m	~~~~	
PLANT		CORREEN CARTEN CARTEN CARTEN CARTEN	GREEN GREEN VARIABLE VARIABLE	VARIABLE SCREEN SCREEN SCREEN SCREEN	COOR COOR COOR COOR COOR COOR COOR COOR	N N N N N N N N N N N N N N N N N N N	GREEN SREEN VARIABLE		GREEN VARIABLE GREEN GREEN	
STEM	noo	0.00	иоооо	-00			0-		ω υ	
STALK	STRONG	STRONG STRONG WEAK	STRONG STRONG STRONG	STRONG WEAK WEAK STRONG STRONG	S S W W W W W W W W W W W W W W W W W W	STRONG STRONG STRONG	STRONG	WEAK WEAK STRONG STRONG WEAK	WE AK WE AK WE AK STRONG WE AK	WEAK
PL ANT HE IGHT (CM)	180 175 130	0000 0000 0000	075 125 070 080	135 070 135 178	085 070 075 075	060 055 075	075 075 080	0000 0000 0000 0000	170 085 070 138	085 100 120 075
MATURITY	LATE EARLY MIDSEASON	LATE LATE MIDSEASON MIDSEASON LATE	EARLY MIDSEASON MIDSEASON MIDSEASON MIDSEASON	LATE MIDSEASON EARLY EARLY LATE	MIDSEASON MIDSEASON VERY LATE LATE MIDSEASON	LATE EARLY MIDSEASON VERY LATE LATE	LATE EARLY MIDSEASON LATE	LATE MIDSEASON MIDSEASON VERY LATE LATE	MIDSEASON MIDSEASON MIDSEASON MIDSEASON	LATE LATE MIDSEASON LATE
SOURCE	TURKY TURKY TURKY	TORT TORT TORY TORY TORY TORY TORY TORY	11 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	TURKY TURKY TURKY TURKY	11 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	1111 1128 1128 1128 1138 1138 1138 1138	TURKY TURKY TURKY SYRIA USA	TT ARUTT TO	TURKY TURKY TURKY TURKY	A A A A A A A A A A A A A A A A A A A
P. I. NUMBER	174006 174007 174008	175035 175559 175560 175561 175562	175563 175564 175565 175566 175567	175568 176382 176383 176384 176385	176386 176387 176388 176389 176849	176850 176851 176852 177234	177236 177238 177239 177240 178808	178815 178816 178817 178818 179157	179158 179159 179621 179622	179624 179628 179839 179840

	44	დ დ გ გ გ გ გ გ გ გ გ გ გ გ გ გ გ გ გ გ	N N N	เก ๔ พ เก พ	m∢N	m				
HEAVY	HEAVY HEAVY LIGHT	HEAVY HEAVY HEAVY HEAVY	HEAVY VERY HEAVY HEAVY VERY HEAVY HEAVY	HEAVY HEAVY HEAVY	HEAVY HEAVY HEAVY HEAVY VERY LIGHT	HEAVY HEAVY HEAVY MODERATE	MODERATE VERY HEAVY HEAVY HEAVY	VERY HEAVY HEAVY VERY HEAVY VERY HEAVY HEAVY	VERY HEAVY VERY HEAVY VERY HEAVY HEAVY	HEAVY VERY LIGHT HEAVY VERY HEAVY
LONG	C C C C C C C C C C C C C C C C C C C	L ONG LONG SHORT MED LJM SHORT	SHORT SHORT SHORT SHORT	LONG LONG LONG VERY LONG	SHORT LONG MEDIUM SHORT VERY LONG	SHORT LONG SHORT SHORT	SHORT LONG LONG SHORT SHORT	SHOR LONG LONG	SHORT SHORT SHORT L ONG	L DNG MEDIUM MEDIUM SHORT
	en en en en	~~~	-00-0	0m0	~~~		M = = M =	ला का ला ला का	6 6	-0-0
		~~~	~~~	en en en en en	ed ed ed ed ed	e e e e		ed et et et et	en en en en en	
VARIABLE	GREEN GREEN GREEN GREEN	GREEN GREEN GREEN VARIEN GREEN	SAREEN SAREEN SAREEN VAREEN	SREEN VARIABLE RED RED	VARIABLE RED GREEN GREEN		GREEN VARIEN GREEN SEGEN SREEN	GREEN SREEN VARIABLE GREEN VARIABLE	GREEN GREEN GRAREEN GRARIABLE GRAREEN	VARIABLE SREEN VARIABLE VARIABLE
7	<b>- 0.0</b> -	v = v = =	N	~~ w ~~ w	N N	****	V) en en en	-0-0-	, , , , , , , , , , , , , , , , , , ,	
STRONG	STRONG WEAK WEAK	WENT AK WENT AK WIND A	STRONG WEAK WEAK STRONG STRONG	STRONG STRONG STRONG STRONG	WE AK NO CONTRACT OF CONTRACT	W W W W W W W W W W W W W W W W W W W	STRONG STRONG STRONG WEAAK WEAAK	STRONG STRONG STRONG STRONG	STRONG	
065	0000	00000 0000 0000 0000	000000	00 00 00 00 00 00 00 00 00 00 00 00 00	10100 1000 1000 1000	#000 #000 #000 #000	0000 0000 0000	00000	11000 1300 1300 1300 1300 1300 1300 130	23 1168 170
EARLY	MIDSEASON VERY LATE MIDSEASON EARLY MIDSEASON	EARLY LATE MIDSEASON MIDSEASON LATE	EARLY LATE MIDSEASON EARLY LATE	EARLY EARLY EARLY EARLY	LATE EARLY VERY LATE VERY LATE	MIDSEASON EARLY MIDSEASON LATE	EARLY EARLY EARLY	EARLY EARLY EARLY EARLY MIDSEASON	VERY LATE LATE MIDSEASON VERY LATE MIDSEASON	MIDSEASON EARLY MIDSEASON LATE
PAK	INDIA INDIA INDIA SYRIA	SYRIA SYRIA INDIA TURKY	TURKKY GUARKYY	AAAAA OOONU AAAAA	I I I I I I I I I I I I I I I I I I I	TTURKY TURKY CUBA	CUBA PU RI AFGH INDIA	IND IA PAK PAK PAK AFGH	AFGH IRAN IRAN ZAIRE NIGIA	H P H P H P H P H P H P H P H P H P H P
18 001 7	180252 180252 180405 181853	181904 181928 182121 182128	182130 182131 182132 182133 182831	183010 183011 183012 183108	183285 183285 183286 204544 204545	204670 205161 206936 207824 208731	208732 209104 211573 212586 212878	212968 217511 217929 217930 221161	2222026 2222027 2222697 247754 248999	249007 249620 250126 251500

I	10 1	AT	DE AND THE COMPANY OF COMPANY	STALK	STE	PLANT	PDD TYPE	PODDAXIS	PDD	SPINE	KOOT	FUSAR
	AFGH	LATE	N			zeD	<b>~</b>	-	меріјм			
	APAGH PARGH INDA INDIA	LATE LATE EARLY MIDSEASON EARLY	125 125 090 100			A ED A ED A ED A E D A E D	and and and and		MEDIUM SHORT SHORT LONG MEDIUM			
	UN TANIAN I ANIAN I AN	EARLY MIDSEASON LATE LATE EARLY	1120 1150 1165 005		w	AGGREGE CHECE CHECE NNN		M m m m m	SHORI SHORI MEDIUM MEDIUM SHORI	MODERATE		
	CHILL ANNUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN ANDUN	LATE MIDSEASON MIDSEASON MIDSEASON MIDSEASON	1000 1000 11000 0000			ACT CONTRACTOR OF CONTRACTOR CONT	and and and and and	, pel pel pel pel	MEDIUM MEDIUM MEDIUM MEDIUM			
	I C C C C C C C C C C C C C C C C C C C	MIDSEASON MIDSEASON MIDSEASON MIDSEASON MIDSEASON	11220 0210 0310 0510				ond and and and ond	m m m	SHORT SHORT MEDIUM MEDIUM MEDIUM			
	I N N N N N N N N N N N N N N N N N N N	LATE EARLY LATE EARLY	1000 1000 1000 000	STRONG STRONG WEAK STRONG STRONG	<b>∩</b> • • • • • • • • • • • • • • • • • • •	STREEN STREEN STREEN STREEN STREEN	pril ped ped pril ped	mm-	SHORT LONG MEDIJM MEDIJM MEDIJM	LIGHT MODERATE MODERATE HEAVY MODERATE		
	INDIA PHIL INDIA INDIA	MIDSEASON MIDSEASON LATE EARLY MIDSEASON	075 090 090	STRONG STRONG STRONG WEAK	ณณ⇔ณณ		prof prof prof prof	ped ped ped ged ped	LONG LONG LONG MEDICA MEDICA	VERY HEAVY MODERATE MODERATE MODERATE		
	INDIA INDIA INDIA GUATA	EARLY MIDSEASON EARLY LATE	1100 000 000 000	STRONG STRONG WEAK STRONG		00 00 00 00 00 00 00 00	and pad god god	pri pri pri [f]	L DNG L DNG MED I JM	MODERATE MODERATE MODERATE		
	INDIA INDIA INDIA TURKY	MIDSEASON	80	STRONG	<b>→</b> •	G G G E E E E E E E N	pri pri	m m	Long	MODERATE		
	IGHANA TINOIA YUGGO YUGGO	MIDSEASON MIDSEASON MIDSEASON MIDSEASON MIDSEASON	4100 000 000	STRONG STRONG STRONG STRONG STRONG			pri pri pri pri pri	n n n	MMEDICA MEDICA MEDICA MEDICA MEDICA	MODERATE MODERATE MODERATE MODERATE		

MODERATE MODERATE MODERATE MODERATE HEAVY	MODERATE MODERATE MODERATE MODERATE	MODERATE MODERATE MODERATE MODERATE		
M M M M M M M M M M M M M M M M M M M	VERY LONG LONG LONG VERY LONG SHORT	L DNG L DNG L DNG S H DNG		
-0777	тттти	m m m ທ		
	SREEN SREEN SREEN	0 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
O				
STRONG STRONG STRONG STRONG STRONG	STRONG STRONG STRONG STRONG	STRONG STRONG STRONG STRONG		
100	100 120 130 130	110 100 30 100		
MIDSEASON MIDSEASON MIDSEASON MIDSEASON MIDSEASON	MIDSEASON LATE MIDSEASON MIDSEASON MIDSEASON	MIDSEASON MIDSEASON MIDSEASON MIDSEASON		
000000	YUGD YUGD YUGD INDIA	INDIA INDIA INDIA ZAIRE	ZAIRE YUGD YUGD JAPPAN PHIL	PHIL PHIL PERU PERU
357992 357993 357994 357995	357997 357998 357999 370025	370027 370028 370029 370030	378631 379352 379353 379583 387980	387981 387982 387986 390580





U.S. DEPARTMENT OF AGRICULTURE SCIENCE AND EDUCATION ADMINISTRATION P. O. BOX 53326 NEW ORLEANS, LOUISIANA 70153

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR 101



## FIRST CLASS

Ret	furn the mailing label(s) to above address if:
	Your name or address is wrong (indicate corrections, including ZIP).
	You receive duplicate copies (include labels from all copies received
	You do NOT wish to continue receiving this technical series.